

SN. 10/621,249

ATTORNEY Docket NO. SUYE:001

REMARKS

Claims 2-8 remain pending in this application for which applicant seeks reconsideration. Applicant thanks the examiner for granting an interview on May 23, 2006.

Amendment

Claims 2, 4, and 8 have been amended to improve their form and clarity. As applicant believes that the present amendment does not introduce any new issue/consideration, applicant urges the examiner to enter this amendment.

§ 112 Rejection

Claim 8 stands rejected under 35 U.S.C. § 112, 1st ¶, for failing to comply with both the written description and enablement requirements. Claim 8 also stands rejected under 2nd ¶ of § 112 for failing to distinctly claim the subject matter which applicant regards as his invention. Applicant submits that the present amendment obviates these rejections. Specifically, claim 8 now recites that the flow patterns comprise marbelized patterns to simulate wood grains.

Nonetheless, applicant traverses the § 112 rejections to the extent that the method calls for forming a simulated wood grained product made of molded resin. The examiner admits that the present disclosure shows a wood grained pattern in the drawings and describes the formation of a wood grained product. The examiner, however, alleges that a wood-grained pattern involves the formation of both the concentric rings and linear lines, and that the drawings show only concentric rings. This is simply not true. Figs. 2, 4, and 5 all show both the concentric rings and linear lines. For example, the area on the left side of the product in these figures clearly shows linear lines, while areas on the bottom side of the product show concentric circles. Moreover, a wood-grained pattern does not necessarily involve the formation of both concentric rings and linear lines. Many pieces of wood have few or no concentric lines, if they are taken from a portion of the tree having no branches (which result in concentric circles). Conversely, an area in which a tree has many branches produces wood in which concentric circles predominate. Thus, drawings that show a pattern of either concentric rings or linear lines or both would demonstrate a wood grain product as presently claimed.

As to enablement, the flow patterns formed in the process according to the invention will vary based on such things as the shape of the mold, the screw speed and temperature. It is similar to the flow of a stream, which produces areas of linear flow and areas of circular flow, depending on speed and shape of the stream bed. The end result of the present process gives the impression of wood grain, and it is noted that the skilled artisan can change injection

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conditions such as screw speed and temperature to vary the marbelized patterns of the product to simulate wood-grained patterns. One concrete example of this is given on page 10, and a skilled artisan could readily determine other combinations by routine experimentation. Variation of the suggested conditions is within the level of skill in the art, and hence the specification provides both an adequate written description and enables the claimed subject matter.

Finally, as correctly noted by the examiner, applicant's wood grain product has a "faux finish." In the context of an injection molded article, "a wood grained product" is understood to be one that gives the impression of wood, without necessarily being an exceedingly accurate representation of any actual wood. Since "wood grain" is understood in the context of injection molded articles to cover any patterns that give the viewer the feeling that the article is made of wood, claim 8 distinctly points out that which applicant regards as the invention as it relates to wood grain products, as required by § 112, 2nd ¶.

Art Rejection

Claims 2-8 stand rejected under 35 USC 103(a) as being unpatentable over Langois (USP 4,125,582). In rejecting the claims, the examiner asserts that it would have been obvious for one of ordinary skill in the art to apply a colored transparent layer over the molded product to change the color or appearance of the produce. [Emphasis added]. Applicant traverses this rejection because the examiner simply fails to provide any support for the examiner's contention that applying a colored transparent layer over a molded product would have been obvious.

Langois indeed discloses a method of making marbelized parts using a melt stream of multiple colors of thermoplastic materials. But as pointed out during the interview with Supervisory Primary Examiner Carol Chaney, Langois does not disclose or teach applying a colored clear layer over the molded product. In realizing Langois's shortcomings, the examiner essentially applied a design choice argument, namely that it is common to coat plastic structures with a transparent color layer to change the color of the object, and that any colored layer can be applied to change its appearance. The examiner alleges that this is often done for a structure in which one wants aspects of the surface to show through, e.g., a metallized structure, and therefore concludes that it would have been obvious to one having ordinary skill in the art to have coated the articles taught by Langois with a transparent color layer depending on the color of the object desired.

The examiner, however, does not provide any evidence of applying a colored transparent layer over a molded product to change its contrast and hue, as indicated in the Interview Summary. The claimed sequence of steps produces flow patterns that have depth

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and clarity, while maximizing the flow patterns of the injection-molded article obtained by the "injection molding process," and unevenness of the flow patterns of the injection-molded article in color can be obscured. Thus, the claimed process does not employ "color changes" that are merely a "design choice."

Surfaces of an injection-molded article formed of synthetic resin have been conventionally coated. However, in opaque color coatings common in the art, the coating layer hides the ground color and flow patterns on the surface of the injection-molded article. Sometimes clear or transparent coating with no color tint is applied to a surface of an injection-molded article. However, while a colorless clear coating puts a shine on the surface of the injection-molded article and/or protects the surface, the ground color or the color of flow patterns appears on the surface of the article as it was prior to the coating.

The examiner has identified no teaching of the use of colored transparent coating on an injection-molded article. Instead, the examiner now mentions (but has not applied), wood polishes/finishes, as exemplified by pages from Harden furniture. Furniture finishes on fine wood would not have motivated one of ordinary skill in the art to use of a colored transparent coating on an injection-molded article. Wood finishes soak into the wood to bring out grain and highlights. Often a clear coating, such as a polyurethane coating is added for shine and protection. See, for example, the dry sheen finishes. Neither the opaque stains that are used to soak in and color the wood, nor the clear overcoats would have suggested the use of a colored transparent coating on an injection-molded article.

The examiner has cited no art that uses a colored clear coating process, let alone one that uses to affect the hues and contrast of a ground color and the flow patterns in a molded resin product. The use of a "colored clear coating process" which uses "a colored clear paint of a color different from the ground color of the base material," as recited in claim 2 has not been taught and would not have been obvious to one of ordinary skill in the art. No *prima facie* case of obviousness exists. Moreover, the combination of steps recited in claim 2 produces advantages that would not have been expected based on the art of record, and rebut any inference that the present invention would have been obvious.

Applicant urges the examiner to reopen prosecution and cite prior art that supports the examiner's allegation that using colored clear coating on a molded resin product would have been obvious, or allow the claims.

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In the Interview Summary, it was indicated that one of the three samples provided is of the instant invention and the remaining two are prior art. Applicant wishes to clarify that the tags attached to the samples clearly indicate that one is a conventional resin product formed by a hydraulic transfer method, while the other two are the molded product formed by the instant invention, one before the colored clear coating process, and one after the colored clear coating process (as presently claimed). While forming molded resin product with marbelized patterns to simulate wood grains are known, such as cited by the examiner and the references cited on page 3 of the present specification, and a similar product could have been produced using the known method, it is not entirely correct in stating that the molded sample provided without a colored clear coating is prior art to the extent that the molding process disclosed in the present application in itself is not necessarily known or obvious.

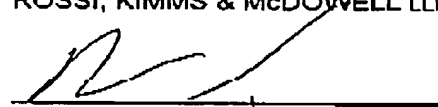
Conclusion

Applicant submits that the pending claims patentably distinguish over the applied references and are in condition for allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicant urges the examiner to contact the undersigned to expedite prosecution.

05-30-06
DATE

Respectfully submitted,

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